THE AGRICULTURAL · SITUATION ·

JUNE 1939

A Brief Summary of Economic Conditions

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

Subscription price, 50 cents per year; single copy, 5 cents; foreign price, 70 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VOLUME 23 - NUMBER 6 - WASHINGTON, D. C.

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JUNE is the month of heaviest seasonal farm employment. Twelve million farm family workers and hired hands are busy with the crops and livestock, literally from Maine to California. * * * Eyes are on the winter wheat harvest—in Texas and Oklahoma, in southern Kansas and Missouri. How much has it been damaged by dry weather? * * * All over the South cotton is being "chopped", far south in Texas some cotton is being picked. No one knows how much cotton is planted, not even how much the planters "intended" to put in. The first official cotton acreage report will be out next month. * * * In the great midcontinent, corn is being cultivated. Plans are being made for next season's crop of pigs. Unless the corn crop is pretty small, many more sows will be bred next fall. * * * In the Mountain States, sugar beets are being thinned. Potatoes are being cultivated in Idaho, cantalopes being harvested in Arizona. In the Pacific States, many crops are being harvested—peas and cherries, oats and barley, oranges and strawberries, and flax. * * * A new hay crop is being made.

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Commodity Reviews

DEMAND: Summer Rise?

DESPITE continuance (into May) of the decline of industrial production there were some signs to renew expectations that business conditions and demand for farm products will show some improvement during the summer.

The combined effects of the coal strike, war fears, declines in security prices and internal developments in steel and other important industries resulted in a 6-point decline in the Federal Reserve index of industrial production for April, carrying the index down to 92 percent of the 1923–25 average. Weekly figures suggest that May production may have been about the same as in April.

Ending of the coal strike will mean greater activity in that industry during the summer. The earlier appearance of new-model automobiles this year will mean more summer activity in lines furnishing parts and materials for automobile production, although it will also result in an earlier than usual seasonal shut-down of automobile assembly lines.

The recent period of price cutting in the steel industry has brought a considerable volume of new orders which will be filled largely during the summer. The active building industry this year, and the stage of progress reached on P. W. A. projects, also will have a tendency to make business relatively good during the summer. * * * All of these conditions point to at least slight improvement during the summer, although further weakness in textile activity and the general spirit of caution recently evidenced by businessmen probably will prevent any sharp rise.

Even if some of the unfavorable elements in the situation, such as European political developments, should offset the moderately favorable factors enumerated above, there appears assured a sufficient volume of industrial output to prevent any serious recession such as in 1937–38. Conditions continue to point, therefore, toward relatively stable business conditions and consumer purchasing power in the United States during the remainder of this year.

INCOME: Equal

Farm cash income from marketings and Government payments in the first 6 months of this year probably will be about the same as in the corresponding period of 1938. The January–June total last year was 3,341 million dollars. The total for the first 4 months of 1939 was 2,240 million dollars compared with 2,227 million in the like period of 1938. Prospects are that May and June totals will be about the same this year as last.

Income from marketings has been smaller to date this year, but the difference has been more than made up by Government payments. The decline in income from marketings has been due chiefly to the smaller returns from cotton and cottonseed, fruits, tobacco, and dairy products. Larger income has been received from marketings of grains, vegetables, meat animals, and poultry and eggs.

April figures with comparisons and cumulative totals, January–April, are shown in the following table:

	Income from marketings	From Government payments	Total
April:			
1939	$463,000,000	$90,000,000	$553,000,000
1938	488,000,000	60,000,000	548,000,000
1937	583,000,000	63,000,000	646,000,000
January–April:			
1939	1,958,000,000	282,000,000	2,240,000,000
1938	2,059,000,000	168,000,000	2,227,000,000
1937	2,318,000,000	270,000,000	2,588,000,000

PRICES: Higher

The index of prices of farm products advanced 1 point in May, principally on higher prices of wheat and cotton. Prices of meat animals and dairy products declined. The May index was 90, compared with 89 in April, and with 92 in May last year. The rise in May was the first gain for a month since last December.

The buying power of farm products also rose slightly during the last month of record, since prices paid by farmers were practically unchanged. The May purchasing power figure was 75 percent of pre-war compared with 74 in May last year.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products[1]
1938			
May	92	125	74
June	92	124	74
July	95	123	77
August	92	122	75
September	95	121	79
October	95	121	79
November	94	121	78
December	96	120	80
1939			
January	94	120	78
February	92	120	77
March	91	120	76
April	89	120	74
May	90	120	75

[1] Ratio of prices received to prices paid.

WHEAT: Prices Higher

Crop prospects down, prices up, is the sum of the domestic wheat situation. As reports of unfavorable growing conditions in the Southwest and Northwest were flashed to the markets, prices were bid up during the last month to the levels of last summer. Average of local market prices the country over on May 15 was 63.0 cents a bushel, compared with 71.4 cents on the same date last year.

The net of the domestic situation is the prospect that the supply of wheat (production plus carry-over) will be somewhat less than 1 billion bushels this season. The Secretary of Agriculture announced there would be no need for marketing quotas, and the wheat-acreage allotment for 1940 was increased—to 62 million acres, compared with 55 million this year.

Variable reports have been coming in as to growing conditions in other parts of the world. Considering pros-

Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	May average, 1910-14	May 1938	April 1939	May 1939	Parity price May 1939
Cotton, lb.......cents	12.4	12.7	8.4	8.15	8.48	15.6
Corn, bu.......do	64.2	66.2	52.7	45.4	48.3	80.9
Wheat, bu.......do	88.4	90.3	71.4	57.8	63.0	111.4
Hay, ton.......dollars	11.87	12.28	7.91	6.67	6.68	14.96
Potatoes, bu.......cents	69.7	69.5	[2] 54.3	75.1	65.6	85.4
Oats, bu.......do	39.9	41.5	27.5	27.4	29.5	50.3
Soybeans, bu.......do	([1])	([1])	86.7	78.2	87.3	----------
Peanuts, lb.......do	4.8	4.9	3.4	3.4	3.4	6.0
Beef cattle, cwt.......dollars	5.21	5.50	6.25	7.08	7.09	6.56
Hogs, cwt.......do	7.22	7.23	7.35	6.57	6.39	9.10
Chickens, lb.......cents	11.4	11.8	16.1	14.4	13.9	14.4
Eggs, doz.......do	21.5	16.6	17.6	15.5	15.2	[3] 20.0
Butterfat, lb.......do	26.3	24.0	[2] 25.1	21.4	21.5	[3] 31.8
Wool, lb.......do	18.3	17.8	[2] 18.8	19.7	21.0	23.1
Veal calves, cwt.......dollars	6.75	6.59	7.62	8.38	8.26	8.50
Lambs, cwt.......do	5.87	6.46	6.90	7.88	8.02	7.40
Horses, each.......do	136.60	139.20	87.50	81.50	82.50	172.10

[1] Prices not available. [2] Revised. [3] Adjusted for seasonality.

pects for smaller crops in the United States and in India this season, it appears that world production of wheat (excluding Soviet Russia and China) will be smaller this year than last. The question is whether the world production will be enough smaller to offset the increase in the carry-over this July 1 compared with last.

The world carry-over of wheat on July 1 is expected to be about double the carry-over on that date last year—when it totaled 595 million bushels. Unless this increase in carry-over is offset by reduced current production the world over, the world supply of wheat in 1939–40 will be the largest on record—exceeding the 5,191 million bushels estimated for 1938–39.

COTTON: Price Rise

Cotton was selling in domestic spot markets at the end of May higher than for nearly 2 years, and ¾ of a cent higher than a month earlier. Average of prices in these markets on May 31 was 9.43 cents for Middling ⅞ inch, compared with 7.76 cents at the same time last year. Strengthening factors have been the continued reduction in stocks of "free" American cotton, and the continuing high rate of domestic mill consumption this season compared with last.

United States exports remain discouragingly small, totaling little more than 3 million bales for this season to date, as compared with more than 5 million in the like period last year. In contrast, the exports of Indian cotton and of most other important foreign growths have been substantially larger this season than last.

In mid-May the stocks of American cotton at European ports were less than half the volume at the same time last year, and substantially less than the average in the preceding 5 years. Stocks of foreign cotton at European ports were somewhat larger than at the same time last year.

The official Government report on 1939 acreage of cotton will be released on July 8.

CATTLE: Reduced Slaughter

Practically all grades of slaughter cattle are selling higher than at this time last year, reflecting reduced slaughter supplies and the better consumer demand for meats. Unless drought recurs, numbers of cattle for slaughter are expected to continue smaller than last year throughout most of 1939. But weights will average heavier.

Principal factor in the reduced marketings is the tendency to hold a larger proportion of breeding stock on farms to increase herds. Both steer slaughter and cow and heifer slaughter to date this year has been less than in 1938, but marketings of steers this summer and fall probably will equal or exceed marketings in the like period of 1938. There were about 13 percent more cattle on feed in the Corn Belt this April 1 than last.

Some reports were received during the past month of poor pasture and range conditions in the West, but feed grain supplies everywhere are abundant and cheap. May 1 farm stocks of hay—more than 16 million tons—were the largest for that date since 1921. There seems little prospect of forced heavy marketings of cattle, such as in 1934 and 1936, even though western pastures and ranges should deteriorate further under continued dry weather.

Imports of light-weight cattle from Mexico have been heavier this spring than last, reflecting the strong demand for stockers and feeders in this country, drought in parts of northern Mexico, and unsettled economic conditions in that country. Prices of stocker and feeder cattle have receded slightly from the comparatively high April figures, but are considerably higher than at this time last year.

HOGS: Prices Lower

Hog prices are somewhat lower than at this time last year, reflecting chiefly the larger marketings this year than last. In mid-May the average price to farmers the country over was $6.39 per cwt. as contrasted with $7.35

on the same date last year. Consumer demand is stronger than at this time last year, but not enough to offset pricewise the relatively heavy current supplies of pork and pork products.

A seasonal reduction in slaughter supplies of hogs is expected after midsummer, but the total supply for the marketing period May to September will be much larger than in the like period of 1938. Meanwhile, another big crop of spring pigs is being fattened for market next fall, and plans are being made for fall farrowings. Hog prices are high relative to corn prices and feed supplies generally are abundant. The 1939 fall pig crop likely will be larger than that of 1938.

Reports have been received of relatively large losses of spring pigs in some areas of the Corn Belt. It is possible that fewer pigs were saved per litter than in the spring of 1938. Nevertheless, the number of sows farrowed was substantially larger this spring than last, and more than offset the smaller number of pigs saved per litter. (Official Government estimates of the 1939 spring pig crop will be released in late June.)

Exports of pork have been heavier this spring than last, principally in shipments of hams and shoulders to Great Britain. Exports of lard also have been heavier, principally to Great Britain. May 1 storage stocks of pork—526 million pounds—were about 5 percent larger than on that date last year, but about 14 percent less than the 1933–37 May 1 average. Stocks of lard—129 million pounds—were about the same as on May 1 last year, and as the 5-year average.

LAMBS: Smaller Supply

Prices of lambs usually decline from about mid-June to mid-August as marketings of new crop lambs increase seasonally. But the seasonal increase in marketings this summer may be somewhat less than usual. In addition, consumer demand for lamb and other meats may be stronger this summer than last.

Supplies of new crop lambs for slaughter are smaller than at this time last year. Marketings of grass-fat yearlings and other sheep also will be smaller through early summer. But prospects generally are favorable for the late lamb crop in the Western States. These lambs usually are marketed in volume after June or July.

California producers disposed of their lambs early, making high record eastward shipments in April, with a relatively large proportion going to feed lots. Texas shipments of early lambs were much smaller this April than last, and many of the lambs were in only feeder condition. In the Southeastern States, conditions were favorable in April for the development of lambs.

LARD: Production Up

Production of lard under Federal inspection may total nearly 1,300 million pounds this year. Inspected production in 1938 was 1,076 million pounds—largest since 1934. Both the number of hogs slaughtered and average yield or lard per hog are expected to be larger this year than last. The 5-year (1929–33) predrought average production of lard under Federal inspection was 1,618 million pounds.

Net exports of lard, including shipments to noncontiguous territories of the United States, are expected to be somewhat larger this year than last, when exports totaled 234 million pounds. But net exports probably will be much below the 1929–33 average of 666 million pounds, chiefly because of reduced takings by Germany since 1933.

Should exports of lard total no more than 300 million pounds this year, supplies for domestic consumption are likely to be about 200 million pounds more than in 1938, and about 100 million in excess of supplies in the 1929–33 period. Domestic supplies in 1940 are likely to be larger than in 1939.

The increased domestic supply of lard this year and next will mean a

reduction in the use of competitive fats and oils in compounds and vegetable cooking fats.

WOOL: Good Outlook

The outlook for wool is more favorable to producers this season than last. Prices of new clip wool have been slightly higher than in the spring of 1938, there is a relatively small carry-over of wool into the current season, and prospects are for a fairly high level of mill consumption this year.

Stocks of apparel wool held by United States dealers and manufacturers on April 1 totaled 172 million pounds, grease basis. In addition, there were 6 million pounds of wool from the 1938 clip on farms and ranches and in country warehouses in the 13 western sheep States. The total was about 58 million pounds smaller than on April 1 last year.

United States imports of apparel wool in the first quarter of 1939 were much larger than a year earlier, and larger than in the corresponding period of any of the 5 years 1931–35. But the 1939 imports were smaller than the relatively large imports of 1936 and 1937. The first quarter of the year is usually the season of largest importation.

TRUCK CROPS: Fresh Market

It appeared in late May that the total acreage of commercial truck crops for fresh market shipment this season will be as large as the high record acreage harvested last year. Reductions in acreage were reported on cabbage, spinach, tomatoes, celery, and snap beans; increases on cantaloups, peas, watermelons, and lettuce.

Meanwhile, reports were being received of smaller yields, resulting in a reduction of about 2 percent in total tonnage this year compared with last. Carlot shipments of truck crops declined sharply in late May, reflecting decreases in several early deals and delayed harvesting of late spring crops. June shipments should be heavier, since the movement of cantaloups and watermelons usually expand quickly this month.

Wholesale prices of truck crops at major terminal markets were lower in late May than a month earlier, and lower as compared with late May last year. Spectacular was the reduction in f. o. b. prices of cabbage, from $1.75 to 60 cents a crate. Sixty cents a crate was equivalent to about $6 a ton to growers.

TRUCK CROPS: For Canning

Unusually large quantities of canned vegetables moved into consumption at low prices this spring; nevertheless the stocks of all major canned vegetables in the hands of canners on respective carry-over dates for the various products will probably total 23 to 24 million standard cases—heaviest on record.

The large supplies of canned vegetables, and low prices, are reflected in a 20-percent reduction in this year's intended acreage of truck crops for canning and quick-freezing. The preliminary estimate of planted acreage of green peas for canning and freezing was 260 thousand acres, compared with 334 thousand last year.

Stocks of frozen vegetables in storage May 1 totaled 47.4 million pounds, slightly more than twice the stocks on that date last year and seven times as large as 2 years ago.

POTATOES: Prices Lower

For the first time in more than 6 months, old and new potatoes are selling (in late May) below prices the previous year. Market prices declined from late April through May on heavy marketings from the harvests in Alabama, Louisiana, South Carolina, and California. May 1 conditions indicated a crop of 18 million bushels in these and other States in the second section of early States, compared with nearly 17 million bushels last year.

Offsetting this increase, in part, a reduction of about 700 thousand bushels has been indicated for the second early States, this year com-

pared with last. The indications for the second early States totaled 5.7 million bushels, against 6.4 million last year. The total supply of new potatoes in both groups of States, for market in May and early June, was indicated at 23.7 million bushels, compared with 23.4 million last year.

Marketings of the relatively small Florida and Texas early crops and the stored portion of the 1938 late crops were about completed in late May. No information regarding production of new potatoes in the intermediate States was available in late May, but growers in these States had reported plans to increase the acreage slightly over 1938. Marketings from the intermediate States usually begin in late June.

FRUIT: Prospects

Most sections of the country had fair to good prospects for fruits in early May—for apples, peaches, pears, cherries, grapes, strawberries. The California crop of summer oranges was not doing so well; it was indicated the production would be about 24.5 million boxes. This is about 15 percent less than in 1938. In addition, the crop is likely to run to small sizes. Possibly not more than 75 percent of the crop will be of marketable quality for fresh consumption, it was estimated. Market prices of oranges and lemons were slightly higher in mid-May.

A crop of 16.2 million bushels of early peaches in 10 Southern States was indicated as of May 1. This is slightly larger than in 1938, and 1.7 million bushels more than average. Prospects for peaches for both canning and drying in California were reported as "good," as were also the prospects for pears and grapes in the Pacific Coast States. Prospects for cherries were "good" in all important States except Idaho and Utah.

Winter and early spring freezes caused little damage to apple trees and buds, prospects were "favorable" in nearly all important producing areas. Cold-storage holdings of apples totaled 4.7 million bushels on May 1, compared with 5.8 million on May 1 last year, and 4.2 million the 10-year average.

Indicated production of strawberries in the second early, the intermediate, and the first section of late States totaled nearly 8 million crates compared with a little more than 6 million in 1938. Prices rose sharply in eastern cities in early May (on delayed marketings), but declined at Chicago (on heavy marketings from Louisiana and other South Central States).

MAPLE PRODUCTION: Cut

A sharp cut in the production of maple sugar and sirup this season reflected the loss of many trees during the New England hurricane last September. Output in 10 Northern States totaled 20.3 million pounds expressed in terms of sugar, compared with 23.3 million pounds in 1938. The New England season was generally unfavorable and somewhat short. About 37 percent fewer trees were tapped in Vermont and New Hampshire.

DAIRYING: Prices Down

Price reductions on fluid milk have been rather general the country over this spring. Production has been at record high levels for the season, and supplies of "surplus" milk have been increasingly heavy at some markets. Butter prices also have declined. Prices of dairy products are the lowest for this season in 5 years.

Presumably the consumption of fluid milk has increased as retail prices have been lowered in response to increased supply and the public attention that has been called to price disparities among markets. Consumption of manufactured dairy products has increased, but much of this has been due to the distribution of butter to persons "on relief." Reports indicate also that as consumption of butter

has increased, consumption of oleomargarine has declined.

The 1938–39 season was relatively unfavorable to persons who stored butter. The price of 92-score butter at New York averaged only 0.4 cent higher during the out-of-storage season than during the into-storage season. This margin compares with 4.5 cents in the preceding year, and with 3.4 cents in 1936–37. The actual cost of storage space for butter is probably nearly 1 cent per pound for the season.

Pastures were in poorer condition this May 1 than last. Supplies of feed on farms are decidedly above average, but prices of butterfat are somewhat below average in relation to feed grains. Nevertheless, milk production probably will be about the same this summer as last, barring unfavorable weather conditions.

POULTRY, EGGS: Plentiful

Production of eggs continues heavy. Total on May 1 was 4 to 5 percent more than on the same date last year, with the greatest gain—about 10 percent—in the West North Central States. Prices are below 1938 figures, but there are more layers on farms this year than last. The heavy seasonal production of eggs probably will continue. Favorable factors, price-wise, have been the smaller cold-storage stocks and the better consumer demand this spring than last.

Market receipts of dressed poultry have been heavy this spring, reflecting increased production of commercial broilers and the fact that stocks in cold storage have been heavier than at the corresponding time last year. For 7 successive months the commercial hatcheries have reported increases in production of baby chicks over corresponding months last year. Marketings of poultry probably will continue to increase over 1938 during the remainder of this year.

There were 5 percent more young chickens on farms this May 1 than last, the largest increase appearing in the Far West, where average numbers were up 22 percent to the highest totals since 1930. Unless weather and crop conditions should turn unexpectedly unfavorable, it is likely that at least 5 percent more chickens will be raised on farms this year than last.

United States: Exports and Imports of Specified Agricultural Commodities, January-April, Average 1924–29, Annual 1938 and 1939, and April, 1938 and 1939

Commodity	Unit	January-April			April	
		Average 1924–29	1938	1939 preliminary	1938	1939 preliminary
		Thousands	*Thousands*	*Thousands*	*Thousands*	*Thousands*
Exports:						
Pork [1]	Lb.	168, 924	28, 925	35, 613	6, 963	8, 060
Lard, including netural	Lb.	295, 609	68, 292	92, 692	15, 508	17, 531
Wheat, including flour	Bu.	39, 469	39, 825	45, 121	8, 518	9, 468
Apples, fresh [2]	Bu.	5, 201	4, 934	5, 453	851	634
Pears, fresh	Lb.	4, 727	15, 412	9, 435	987	550
Tobacco, leaf	Lb.	170, 887	138, 255	118, 487	25, 317	18, 677
Cotton, excluding linters (500 pounds)	Bale	2, 689	1, 963	1, 114	398	187
Imports: [3]						
Cattle	No.	89	180	401	90	126
Beef, canned, including corned	Lb.	[4] 11, 333	21, 178	21, 836	8, 940	8, 640
Hides and skins, agricultural	Lb.	[5] 136, 084	39, 288	114, 728	7, 540	25, 378
Barley malt	Lb.	[6] 272	37, 516	31, 339	7, 894	11, 287
Sugar, excluding beet (2,000 pounds)	Ton	1, 747	1, 065	681	285	224
Flaxseed	Bu.	7, 123	5, 743	7, 807	1, 024	1, 416
Tobacco, leaf	Lb.	26, 885	18, 296	18, 344	3, 776	3, 546
Wool, excluding free in bond	Lb.	81, 926	6, 388	28, 114	1, 258	7, 109

[1] Includes fresh, canned, and pickled pork; bacon, hams, and shoulders; and sides.
[2] Includes barrels, baskets, and boxes in terms of bushels.
[3] General imports prior to 1938. Subsequently imports for consumption.
[4] Includes a small amount of "Meats canned, other than beef."
[5] Includes reptile and fish skins. [6] Imports for consumption.

The Farm Pay Roll[1]

FARMERS paid out to farm laborers in 1938 cash wages of 556 million dollars, they furnished board and lodging valued at 137 millions, and supplied other perquisites amounting to 65 millions. The total was 758 million dollars. This "farm pay roll" was slightly less than the total of 794 million dollars in 1937, but except for that year, it was the largest since 1931. The largest farm pay roll in 30 years of Government record was 1,780 million dollars in 1920, the smallest was 517 millions in 1933.

These figures have been computed by the Bureau of Agricultural Economics as a part of its estimates of annual expenses of agricultural production covering the period 1909–38. They are part of a series of income and expenditures estimates being compiled for use by the Department of Agriculture in developing income parity estimates in administering the Agricultural Adjustment Act of 1938. The series include estimates of income by commodities, expenses of agricultural production, prices paid by farmers for commodities and services, and income to farmers from nonfarm sources.

IN THE last 30 years, hired labor has cost farmers a total of 29.8 billion dollars, or an average of almost 1 billion dollars a year. Cash wages have made up 73 percent of this total. The remainder—27 percent—represents the cost of goods and services given to hired farm laborers in addition to cash wages. During the 30 years there have been wide annual fluctuations in the farm pay roll. From 1909 to 1915 the farm-labor bill was around 700 or 800 million dollars. Beginning in 1916, it increased steadily to a peak of 1.8 billion dollars in 1920, when wage rates and other prices were at unusually high levels.

In 1921, the farm-labor bill declined to between 1.1 and 1.2 billion dollars, and remained close to that level through 1930 when another decline set in. From the 1933 depression low of a little more than 500 million dollars, it increased to almost 800 million dollars in 1937, but declined again in 1938 to 758 million dollars.

SIMILAR fluctuations have occurred in the cash-wage bill. From a level between 500 and 600 million dollars in the earlier years, it reached its high point in 1920 at 1.3 billion dollars. From 1921 to 1930, it fluctuated narrowly around 900 million dollars. Its low point in 1933 was 366 million dollars, from which it rose to 570 millions in 1937, and 556 million in 1938.

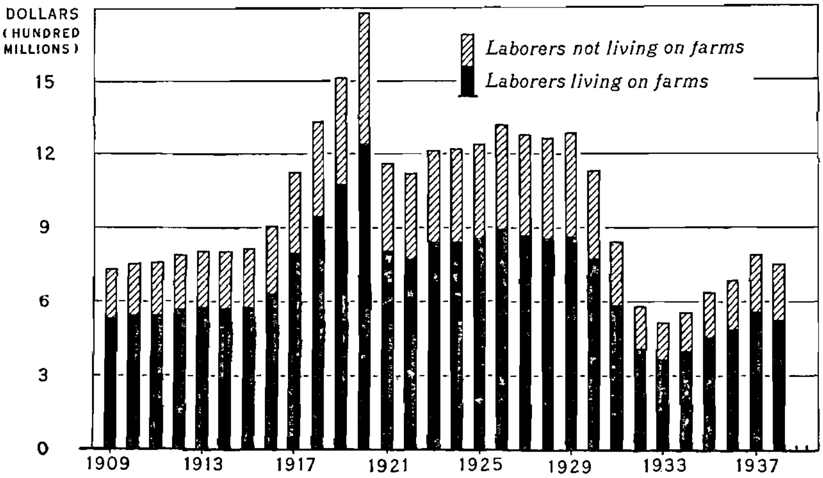
Changes in the cash-wage bill prior to 1930 were due chiefly to fluctuations in farm-wage rates since average employment of hired farm laborers remained rather stable. But in recent depression years, declines in the cash-wage bill have been associated with significant reductions in the number of laborers employed, as well as with lower wage rates.

Since perquisite costs are a little less variable than wage rates, the cash-wage bill tends to be a larger proportion of the total farm-labor bill in years when wage rates are high than when they are low. Thus, in the 1920's the cash-wage bill was usually 74 or 75 percent of the farm-labor bill; but with lower wage rates in the 1930's, the percentage has been around 70 to 71, except for 1938 when it rose again to 73 percent.

The cost of board and lodging and the cost of other perquisites have fluctuated in the same way as the cash-wage bill, but not quite to the same degree. Board and lodging cost has averaged 17 percent of the farm-labor bill, and the cost of other perquisites averaged 10 percent. Together, on the average, they have been

[1] *Estimates prepared by E. W. Grove under the direction of the Farm Income Committee, Bureau of Agricultural Economics.*

COST OF HIRED FARM LABOR, BY RESIDENCE OF LABORERS. UNITED STATES, 1909-38



DATA FOR 1938 ARE PRELIMINARY

almost two-fifths as large as the cash-wage bill.

LABORERS living on farms have constituted from 60 to 70 percent of all hired farm laborers, with the average for the period as a whole a little less than 66 percent. Since wage rates for laborers living on farms have been about the same as those for laborers not living on farms, the cash-wage bill has been split in the estimates in proportion to the number of farm and nonfarm residents.

Most perquisites, on the other hand, are given more frequently to laborers living on farms than to those not living on farms; and the proportion of the total cost of perquisites attributable to laborers living on farms is greater than the proportion living on farms. This is true both for board and lodging and for other perquisites, but particularly as to the latter.

In the case of board and lodging, about three-fourths of the cost is for the two-thirds of the laborers who live on farms. This is because laborers not living on farms do not receive lodging as a perquisite, although they are given board as frequently as laborers living on farms. Laborers not living on farms have few perquisites except board, so that approximately 94 percent of the cost of other perquisites has been for laborers living on farms.

Cash-Wage Bill, Cost of Board and Lodging, Cost of Other Perquisites, and Total Farm-Labor Bill, United States, 1909–38

Year	Cash-wage bill	Cost of board and lodging	Cost of other perquisites	Total farm-labor bill
	Million dollars	*Million dollars*	*Million dollars*	*Million dollars*
1909	522	130	83	735
1910	528	147	82	757
1911	532	147	81	760
1912	555	149	88	792
1913	572	152	83	807
1914	566	152	87	805
1915	576	153	86	815
1916	641	167	96	904
1917	789	200	138	1,127
1918	960	227	148	1,335
1919	1,099	258	158	1,515
1920	1,325	283	172	1,780
1921	841	208	110	1,159
1922	820	198	104	1,122
1923	902	206	111	1,219
1924	912	203	109	1,224
1925	924	200	119	1,243
1926	991	213	122	1,326
1927	955	210	115	1,280
1928	945	209	114	1,268
1929	955	213	116	1,284
1930	838	194	102	1,134
1931	618	160	69	847
1932	420	118	46	584
1933	366	104	47	517
1934	393	106	59	558
1935	449	117	73	639
1936	488	124	78	690
1937	570	138	86	794
1938 [1]	556	137	65	758

[1] Preliminary.

OF THE total farm-labor bill, 70 percent, on the average, has been for the two-thirds of the laborers who live on farms. There has been a slight downward tendency since 1909 in the proportion of hired farm laborers living on farms, but this trend was reversed in 1930 with decreases in total employment of hired farm laborers. The proportion of the farm-labor bill attributable to laborers living on farms has naturally shown similar changes.

O. C. STINE,
Chairman, Income Committee.

Lost—The Czechoslovakian Market

IN 1938 the United States exported more than 26 million dollars' worth of products direct to Czechoslovakia, of which nearly 14 million dollars' worth consisted of agricultural products. This does not represent the full value of our trade with Czechoslovakia, however, since a considerable proportion of our shipments to Czechoslovakia were made through other countries, notably Germany.

Indirect shipments do not show up as exports to Czechoslovakia. In 1937, for example, Czechoslovakia reported imports of nearly 33 million dollars' worth of United States goods, whereas our exports to Czechoslovakia were reported as only a little more than 13 million. It may be assumed, therefore, that Czechoslovakian imports of United States goods in 1938 were well in excess of our reported exports to that country.

Our total direct exports to Czechoslovakia in 1938 were more than double those of 1937, and our direct agricultural exports to that country in 1938 were over three and one-half times those of 1937. Much of this increase may be attributed to the trade agreement concluded between the United States and Czechoslovakia in March 1938.

Included in our 1938 exports to Czechoslovakia were 91,000 boxes and 775 barrels of apples; nearly 11 million pounds of dried fruits over three-fourths of which consisted of prunes, and about 800,000 pounds of canned fruits. The United States also exported nearly 5.5 million pounds of lard to Czechoslovakia in 1938, and 37 thousand bales of cotton. There were also small exports of prepared cereals, leaf tobacco, and other agricultural products.

IT seems certain there will be a considerable reduction in United States exports of agricultural products destined to the former Czechoslovakian area. While the need for these products is fully as great as it was in 1938, Germany's system of foreign trade control will prevent the fulfillment of this need. With the incorporation of Czechoslovakia into Germany's economy, products destined for that area will be obtained largely on a barter or clearing basis.

Barter trade between Germany and the United States has worked poorly in the past and is expected to be curtailed even further as a result of the United States Treasury decision assessing penalty duties on German products imported into the United States on and after April 23, 1939, due to the fact that those products are subsidized by the German Government. These penalty duties will also apply to products from the former Czechoslovakian area.

Since it will be increasingly difficult to barter German goods for American products, Germany will be forced to pay for our products in foreign exchange, but foreign exchange in Germany is extremely scarce.

An additional development whereby Germany may become less dependent upon the United States for its agricultural needs is the recently concluded agreement with Rumania whereby Germany in effect guarantees

ɔ take practically all of the surplus ɡricultural production of that coun-ʼy. In fact, the agreement contem-lates an expansion of agricultural roduction in Rumania of products particularly needed by Germany, such as feed-stuffs, livestock, oil seeds, and vegetable fibers.

D. F. CHRISTY,
Foreign Agricultural Service.

Crop Forecasting—An Appraisal

> It's pretty exciting to see a crop report released at Washington. To watch the newspapermen and telegraph operators toe a chalk line in the center of the room, the Chairman of the Crop Board with his arm raised and ready to shout "Go!" when the hour strikes, the dash for the telephone and telegraph instruments, and the flashing of the news all over the world.
>
> But what goes on behind this scene? How are the reports prepared? What are the principal statistical methods? Can the reports be further improved? How improved? Last month, some of the answers were given in an article dealing with the estimating of crops. This month, Dr. Sarle makes a critical appraisal of the forecasting of crops. Next month, he will deal with the reports on livestock.—*Ed.*

THE first official forecasts of crop production for most of the major ·ops are made in July. The produc-on of fall-sown winter wheat and rye forecast several months earlier and ɔtton on August 1 each year.

The forecasts of crop production, exclusive of tree and bush crops, are made in two or three steps: (1) estimates of acres planted, (2) current estimates of abandonment of acreage since planting for certain crops, and (3) forecasts of yield per acre. The methods used in estimating acreage planted and acreage harvested were described and criticized last month. The methods used in estimating abandonment are quite similar to those used in estimating acreage.

FORECASTS of yield per acre prior to harvest are based primarily on reports of the condition, or promise of yield, of the crop "in percent of normal" obtained on the first of each month from the regular crop correspondents of the Department. Late in the growing season a report on the probable yield per acre also is obtained. Both of these samples are judgment inquiries based on the judgment of the reporters and apply to the locality in which the crop reporter lives.

The condition reports are not as likely to be selective as reports on yield per acre or acreage. The condition data also are less variable. The very nature of the condition inquiry leads to less variability in the individual observations. Normal yields may vary considerably from one area to another, even within a county. A condition of 50 percent would mean a yield of 20 bushels of corn in one area and perhaps 25 or 30 bushels in another. In fact, the greatest variability ordinarily shown by a condition sample is about equal to the smallest variability found with judgment yield sample data (the reports on yield). The most variable yield samples seldom exceed the variability of the least variable samples of individual farms on acreage or livestock numbers.

A FORECAST of yield per acre is made on the basis of the statistical relationship between the reported condition for a given date and the final yield per acre shown for a period of 15 or more past years. One of the fundamental difficulties in using the reported condition of the crop as a basis of forecasting yield lies in the subjective nature of the sample data—the mass judgment of a large number of crop

reporters. There are times when one or more serious insect pests or plant diseases are present in a crop but are not sufficiently in evidence to be readily recognized by anyone not well trained in entomology and plant pathology.

One way to meet this difficulty is to have crop estimators, trained in the identification of insect pests and plant diseases and experienced in estimating damage to yields resulting therefrom, make frequent field inspections of the growing crop in important commercial producing areas.

THE crop reporter's concept of a normal or full crop—condition is reported in percent of normal—remains reasonably constant over a long period of years. In fact, the crop correspondents are slow in changing their concept of normal when the introduction of improved cultural practices or higher yielding varieties call for an upward revision. For example, the increasing use of soil-building crops and the concentrating of reduced cotton acreage on the more fertile land on the farms of the South have resulted in substantially higher yields of cotton.

The reported condition or appearance of the growing crop apparently tends to reflect the vegetative more than the reproductive aspects of the cotton plant. The reported condition for cotton has failed to allow for the increase in potential yield (the level of the relationship between condition and yield for 1937 and 1938 has apparently been raised some 20 pounds). This difficulty is partly overcome by asking the crop correspondent to report in terms of probable yield per acre.

The rapid introduction of hybrid corn in the Corn Belt States has had much the same effect in raising the line of relationsip for corn condition and yield.

NOT only is it possible for the level of the condition-yield relationship to change but the relationship can even change from one with a positive slope (the higher the condition the higher the yield) to one with a negative slope (the lower the condition the higher the yield). Such a change occurred in the case of winter wheat in Maryland soon after 1900. The disease known as septoria nodorum became widespread in Maryland at about this time. It is not readily recognized and does its greatest damage under weather conditions that are highly favorable to the vegetative growth of the wheat plant. Consequently a high condition is associated with a low yield.

Potatoes and peanuts are crops that do not show a high degree of relationship between the reported condition of the growing crop and the final yield. This is not surprising in view of the fact that potatoes and peanuts are both developed underground and the reported condition of the crop tends to relate largely to the appearance of tops or vines.

Obviously it is essential that more precise methods be developed for forecasting yield per acre in advance of harvest. The experience gained in making boll counts on cotton and the results obtained in studies of the relationship of yields to weather, indicate three lines of development: (1) methods involving the use of weather data along with condition in forecasting yield, (2) methods based on the relation of yield to structural counts and measurements of the plant characteristics associated with yield from representative samples of the growing crops, and (3) methods involving the use of the direct or indirect influence of weather on crop yields.

THE reported condition as of the first of a particular month may not reflect the full influence of weather that has prevailed up to that time. A deficiency in subsoil moisture, accompanied by adequate surface soil moisture may give a temporarily high condition for a crop at a given date. If rains are ample and well distributed, a good yield may result, but normal or light rains may not furnish sufficient moisture to carry the crop through to a good yield.

The yield of a crop depends on certain plant characteristics such as stand, size of the plant, the size of the head or ear, and the plumpness of the kernels. Some of these characteristics can be measured well in advance of harvest.

The analysis of head samples of spring wheat representing the eastern half of North Dakota, taken just ahead of harvest in 1938, shows that height of the wheat plant, number of heads, and length of heads are all associated with yield per acre. These are plant characteristics that could be measured several weeks prior to harvest, and at a time when the prevalence of insect or plant disease could be detected by a well-trained observer.

For about 10 years, the Department has been making boll counts and measurements on cotton in commercial fields along several thousand miles of routes laid out through the cotton South during both August and Sep-tember. The results obtained suggest the feasibility of developing objective methods of forecasting the yield of these two crops based on actual field observation.

A NUMBER of studies have been made of the relationship of weather factors to the yield per acre of various crops in a number of States, using averages of weather data and yields for the entire State. The forecasting formulas developed have not proved very satisfactory when actually used for forecasting in seasons not included in the study. During the last 2 years, however, research of a more intensive nature, using weather and yield data from the Agricultural Experiment Stations, has been undertaken and special field plot experiments designed for the purpose of studying the effect of weather and soil moisture on growth and yield of wheat, corn, and cotton have been started and methods developed for doing this type of crop-weather research.

Five or 6 years of crop-weather field experiments at some 6 to 10 stations for a given crop would form an excellent basis for determining the direct and indirect influence of weather on crop growth and yield per acre.

One of the inherent difficulties in forecasting the yield per acre in advance of harvest is that the growing and maturing crop is always subject to the hazard of damage either directly from weather or indirectly from disease and insects which are in turn largely controlled by weather. On the other hand, the yield of a crop with indeterminate fruiting habits such as cotton can be greatly increased even late in the season by unusually favorable weather.

THE earlier in the growing season the forecast is made the greater is the hazard of subsequent weather. It is not surprising, therefore, that early season condition usually is not sufficiently related to final yield to justify its use in forecasting.

If accurate forecasts of yield per acre are to be made early in the growing season, it will be necessary (1) to know the relationship between weather and yield per acre, and (2) to know how to forecast the weather, or at least the extremes of weather, for several months in advance.

A research program in meteorology has been under way during the last 2 years that has practically doubled the scanty knowledge in this field. It will take time and a great deal of investigational work, however, before dependable methods of long-range weather forecasting can be developed.

C. F. SARLE.

Income from all marketings in April was 5 percent smaller than in March, but this was less than the usual decline at this time of year. The total was 5 percent less than in April last year. This was due to smaller receipts from cotton marketings and loans, and to smaller income from sales of dairy products.

Changes in the Poultry Industry

E poultry and egg industry nce more is expanding. Pro- n of chickens was increased in and a further increase is in ss this year. Production of eclined slightly in 1938, but the t during the current year 1939, robably equal or exceed that of On January 1 last there were ximately 413 million chickens on

ing the last 15 years the largest er of chickens on farms was 475 n in 1928, and the smallest was illion in 1938. There had been lual increase from 1925 to 1928, is was followed by drastic re- ns during the ensuing years of mic depression and droughts. shortage continuing through the hatching season left the number ickens on January 1, 1938 at w point for the series, but during there was a 7 percent recovery nbers.

THE total number of chickens n January 1 last, approximately illion were in the West North l States. It was in this area he poultry industry was reduced during the drought years, but ather conditions became more ble and feed more plentiful was a partial recovery in 1938. umber of chickens in these States nuary 1 last was still about 16 t less than in 1925.

1925, the West North Central had about 30 percent of all ns in the United States. The tion on January 1 last was 26 t. It is expected that with more l feed conditions this area will a larger share of its relative n in the poultry and egg y. The East North Central —next most important in pro- n—also lost heavily in num- uring the 1930's, and on Janu- ast had 9 percent fewer chickens n 1925.

The South Central States reduced sharply the number of chickens during the drought and depression years, but the declines were not as severe as in the North Central area. The number of chickens in the South Central area on January 1 last was about 4 percent larger than in 1925. The number in the South Atlantic area also exceeded by a slight margin the 1925 figures.

In the far Western States the number of chickens on January 1 last was about 1.4 percent more than in 1925. From 1925 to 1930 the poultry industry in the West had continued to expand rapidly, but most of this increase has since been lost. In contrast, in the North Atlantic States there are 6 percent more chickens now than in 1925. This area has greatly increased its competitive position in the poultry and egg industry during the current decade.

THE trend of production of chickens during the last 15 years has followed in general the trend of inventory numbers. Largest production during the period was 714 million chickens in 1930, smallest was 578

Chicken and Egg Production, United States, 1925–38

Year	All chickens on farms, Jan. 1	Number of chickens produced[1]	Number of eggs produced
	Thousands	*Thousands*	*Millions*
1925	434,998	626,069	34,969
1926	438,000	664,594	37,248
1927	460,999	693,657	38,627
1928	474,997	639,917	38,659
1929	449,006	692,328	37,921
1930	468,491	714,380	39,067
1931	449,743	646,579	38,532
1932	436,815	672,619	36,298
1933	444,523	684,929	35,514
1934	433,937	604,511	34,429
1935	389,958	632,365	33,305
1936	401,238	703,067	33,996
1937	420,257	577,701	37,647
1938	386,573	646,700	36,998
1939	412,647	----------	----------
1927–36 (average)	440,971	668,435	36,635

[1] Net production during the calendar year, i. e., chickens sold, consumed in farm household, and the plus or minus difference in inventory.

million in 1937. Production had increased from about 626 million birds in 1925 to the record high in 1930, but by 1934 the output was down to about 605 million. There were increases in 1935 and 1936, followed by a sharp drop in 1937, and an increase in 1938 when the output totaled 647 million birds. Production in 1938, however, was much smaller than in 1927, 1929, and 1930.

From 1925 through 1938 the production of chickens increased in 3 of the major geographic areas and declined in 3. In the North Atlantic States, production increased about 37 percent from the low point of about 62 million chickens in 1925 to the high point of about 86 million in 1936. After receding to about 73 million in 1937, production in this area increased to 81 million in 1938. In the South Atlantic division production followed about the same trend with an increase from 1925 through 1938 of 25 percent. The South Central made a nominal increase of less than 1 percent. The greatest decrease in production was 9 percent in the Far Western division. In the West North Central States the decrease was about 6 percent and in the East North Central area less than 2 percent.

A further substantial increase in production of chickens appears probable in 1939, a conclusion based upon the present poultry and feed situation and the tendency for the poultry industry in recent years toward a 3-year cycle in production. Should this increase be as large as appears possible, the total number of chickens on farms next January 1 may be the largest since 1933.

APPROXIMATELY 37 billion eggs were produced in 1938. Largest production was 39 billion in 1930, smallest was 33 billion in 1935. Production had increased gradually from 1925 through 1930, then gradually decreased during the drought and depression years. Production increased about 11 percent in 1937 as economic and feed conditions improved, but declined slightly in 1938 on account of the small number of layers. With the present increase in layers, egg production may reach or exceed the 1937 record this year.

Egg production in 1938 was larger than in 1925 in all major geographic areas except the West North Central States, which showed a decrease of about 7 percent This decrease reflected the large reduction in number of laying birds due to the relatively great increase in feed costs and the absolute shortage of feed on farms during several recent years. The most pronounced increase in production of eggs has been in the North Atlantic States where production in 1938 was about 23 percent larger than in 1925.

ALTHOUGH total egg production in the United States in 1938 was about 6 percent larger than in 1925, it came from 10 percent fewer layers at the beginning of 1938 as compared with 1925. This indicates that production per bird was about 18 percent larger in 1938 than in 1925. Less available feed resulted in lower egg production per bird during some depression and drought years, but hens laid an unusually large number of eggs in 1937 and 1938, and the general trend in rate of laying per hen has been upward since 1925.

In most of the recent years of high production per hen the winter seasons have been mild and other conditions have been favorable for increased egg production. However, an increase in the potential laying capacity of the average hen has characterized the records of egg production since 1880.

S. A. JONES.

Approximately 2.6 million hired workers were on farms in early May, representing an increase of about 1 million workers since January 1. Men were added to the farm pay rolls during April in all sections of the country. Seasonal peak of employment is in June.

Farm Population—Near Record

REDUCED migration from the drought areas, the generally low level of industrial employment during 1938, and continued expansion of farm mechanization appear to have been major factors accounting for the changes in farm population during the past year. Approximately 1,000,000 persons moved off the farms; 800,000 moved from towns and cities to farms. As usual, the movement from farms to other farms was larger than the movement from farms to towns and cities.

BAE estimates show a net migration of 200,000 persons off the farms in 1938, but this was more than offset by an excess of births over deaths. The total farm population was about 32,000,000 as of January 1, 1939, compared with 31,819,000 in 1938. The farm population is close to the largest on record—32,077,000 in 1910.

DECREASES in farm population have been common in the Great Plains since the severe drought of 1934, but during 1938 the movement from farms in this area was considerably reduced. Losses in farm population were less than in recent years and in a number of States in the Great Plains the farm population increased for the first time in several years. Reports from North and South Dakota indicate a reduction in the movement to other States, and reports from California show that the number of incoming migrants "in need of manual employment" was less than in 1936 and 1937.

Many persons who moved from South Dakota farms to other States in 1938 went to Minnesota, Iowa, Nebraska, California, and North Dakota. In 1937 a larger proportion of migrants from South Dakota had gone to the Pacific coast, principally to Washington, Oregon, and California. Similarly, a larger proportion of the migrants from North Dakota farms went to nearby States—Minnesota and Montana—and fewer to the Pacific Coast States. The number of farm people in the Pacific Coast States increased less than in 1936 or 1937.

THE relatively low level of industrial employment was reflected in the reduction in the number of persons moving from farms to towns and cities and the smaller net movement away from farms in 1938 compared with 1937. (In 1937 the farm-to-town-and-city movement totaled 1,160,000 persons; the net moving off the farms was 288,000.) In the New England States and in New York, New Jersey, Pennsylvania, and a few other States, there was a net movement from towns and cities to farms in 1938. In a number of other States, however, the net movement away from farms was considerably less than it had been during 1937.

Many correspondents commented in 1938 on the growing use of power machinery with the consequent enlargement of farms and the forcing off the land of tenants unable to find other farms. In many cases, farm buildings were demolished or moved away and the former residents had to go elsewhere. Many unable to obtain places to rent sought employment as farm or industrial laborers, or as W. P. A. workers.

Only one correspondent commented that power machinery, as it became better adapted to smaller units, was an aid in counteracting the trend toward large units. Many said there "ought to be a law" restricting the area of land one operator might cultivate. Many suggested that public aid should be made available to help young and older men get a start in farming.

IT APPEARS that the increasing use of power equipment is resulting in a larger number of full-time farmers living in villages. These are the so-called sidewalk farmers who enjoy the

Changes in Farm Population, 1910–39

Year	Farm population Jan. 1	Migration		Births	Deaths
		Farms to cities	Cities to farms		
		Thousands	*Thousands*	*Thousands*	*Thousands*
1910	[1] 32,076,960	(²)	(²)	(²)	(²)
1920	[3] 31,614,269	896	560	825	340
1930	[4] 30,169,000	1,823	1,611	742	344
1931	30,497,000	1,566	1,546	741	334
1932	30,971,000	1,511	1,777	746	328
1933	31,693,000	1,225	944	721	326
1934	31,770,000	1,051	700	749	344
1935	[3] 31,800,907	1,211	825	727	333
1936	31,809,000	1,166	719	716	349
1937	31,729,000	1,160	872	719	341
1938	31,819,000				
1939	[5] 32,000,000				

[1] Estimated, U. S. Bureau of the Census.
[2] Not available.
[3] Enumerated, U. S. Bureau of the Census.
[4] Estimated, based on census enumeration of Apr. 1, 1930.
[5] Preliminary.

social advantages and services of village life without detriment to farming operations. The automobile, the tractor, and other machinery make this arrangement possible—especially in the winter-wheat area.

Reports from farmers everywhere indicate a continued demand for small tracts for subsistence farming and, in some cases, for a limited production of cash crops. This movement seems to be strongest near villages and cities and generally near highways which provide ready access to sources of nonfarm employment. In many areas the lower costs for housing in the open country have resulted in a demand for farmhouses solely for residential purposes, the land being rented separately, possibly to a nearby farmer eager to enlarge his operating unit.

THE reports for 1938 and for other years since 1930 make it clear that, except in the drought area, farm population is increasing more rapidly in the so-called problem areas than in the better-farming areas. Land resources in these areas are severely limited, agricultural incomes are low, and educational and other social services are meager. Nevertheless, it is in these areas that the ratio of maturing farm youth to older workers is especially high.

To start farming in these areas is essentially easier than in the better-farming areas, since land values are low and almost no capital equipment is required. The returns which may be expected under such conditions are, of course, very low and may be insufficient to maintain health and efficiency. Nonetheless, this is the choice of many whose background and education have not provided the knowledge and skills to enable them to compete successfully in better land areas or for urban employment.

In areas where commercial agriculture is predominant, farm population has been either decreasing or increasing only slowly.

CONRAD TAEUBER.

United States exports of cotton and tobacco continued low during April, but shipments of wheat were above the high levels of last season. Pork products were shipped in increasing quantity.

United States imports of hides and wool increased in April, and there was an increase in the rate of imports of barley malt relative to last year. Tobacco imports declined.

Farm Real Estate Values

ꞁHE Nation's farms yielded 11 . percent less cash income in 1938 mpared with 1937, nevertheless the lue of farm real estate as a national erage declined little more than 1 rcent. The decrease was 1 point an index standing on March 1, 39 at 84 percent of the 1912–14 riod. It was the first decline in years, values having increased 4 rcent each year from 1933–37.

The decline in cash farm income in 38—due principally to lower price rels for farm products—was perhaps e most important single item conbuting toward the decline in farm al estate values during the past ar. Other factors include the upırd trend in farm real estate taxes recent years, and the extensive al estate holdings by public and ivate credit agencies. Holdings by principal creditor agencies have been wer in the last 2 years, but still tal close to 28 million acres, representing an investment of approximately billion dollars.

EVERAL current and long-time factors operated to support farm real estate values during the past year. The agricultural credit situation in general continued to be favorable, interest rates on new mortgage loans being at unusually low levels and substantial reductions having been made in annual interest costs in recent years. The frequency of foreclosure and tax sales are at levels lower than in the years before 1930, and although the frequency of voluntary sales has been declining somewhat in recent years, the level still compares favorably with the pre-depression average.

Perhaps the most important single factor supporting farm real estate values is the conservative way in which values responded to the income increases beginning in 1933. Values had declined less than the decline in farm income during the depression; values rose only 16 percent from 1932 to 1937, in contrast with an increase of 98 percent in cash farm income. It was to be expected that, despite the decline in 1938 cash farm income, there should be only a mild reaction in farm real estate values.

M. M. REGAN.

Conditions Change In Seed Industry

ORE than 1 billion pounds of field seeds are marketed annually this country. Thousands of farmers ecialize in this industry, operating rge acreages and experimental plots. me of the output is bought by comercial seedsmen who in turn sell to any more thousands of farmers. he bulk of the business is in forageop seeds, such as the grasses and gumes.

About half of the forage-crop seeds wn is handled by seedsmen. Of rtain seeds such as alfalfa, red clover, entucky bluegrass, redtop, and some her grasses and legumes, the percentage is somewhat larger. Of such forage seeds as the sorghums, millets, and vetches the percentage is smaller. The seeds of cereals and cotton are handled by seedsmen in relatively small percentages of the total, but even these seeds occupy an important place since they are chiefly of improved varieties.

MANY seedsmen acknowledge that in the past the wholesale field seed business has been sustained mainly by speculative profits. The tendency today is toward putting the industry, with the help of Federal and

State agencies, on a sounder merchandising and service basis. The factor which induces speculation is the seasonal character of the seed business. There is no rapid turnover in seeds since there is, ordinarily, only one producing and one sales season.

The real seedsman is more than a seed merchant. Besides buying seeds from the producer and selling them to the consumer he performs several important functions. He furnishes the farmer a cash market for his seed when harvested. He assumes the risk of changing market prices and changes in seed germination. He provides facilities that farmers do not have for storing, cleaning, sacking, and testing seeds. The well-equipped seedsman is, therefore, in position to offer better-quality and better-packed seeds.

The consumer may delay his purchases almost until he is ready to sow and thus determine from prevailing prices and supply and demand conditions what seeds he needs and then order accordingly. The carry-over stocks of seedsmen often assist in meeting emergency conditions where supplies are suddenly needed. One of the most important functions of seedsmen is in furnishing the connecting link between widely separated areas of seed production and seed consumption.

THE changing practices of American farmers as well as the changing styles of American agriculture have affected the seed business. Entirely new crops have been introduced into this country, such as lespedeza and Sudan grass, which now rank in importance along with such crops as alfalfa, red clover, and timothy. The production of lespedeza seed in 1938 was equal to the combined production of alfalfa and red and alsike cloverseed. The production of Sudan grass seed and of sweetclover seed, once considered a weed, was in each case nearly equal to that of alfalfa seed.

The shifting of alfalfa acreage from the western half of the United States to Central and Eastern States has brought about an important change in the marketing of alfalfa seed. In recent years some of the North Central States have also become leaders in alfalfa seed production. The seedsman has been called upon to play an important part in the distribution of new varieties of farm crops introduced by State agricultural experiment stations and the Federal Department of Agriculture.

Because origin or place where grown is recognized as an important factor in the value of certain seeds for sowing, modifications have had to be made by seedsmen to meet this situation. Crop-improvement associations and cooperative seed handlers have focused attention on known-origin seeds. Because of the difficulties in determining origin by examination of the seed and the necessity of basing knowledge of origin largely on records, the Department of Agriculture established the Seed Verification Service in 1927 so that farmers could purchase seed with an assured knowledge of its origin. Practically all of the larger handlers of alfalfa and red cloverseed in the Northern and Central States, about 100 in number, voluntarily subscribed to this program and have handled many millions of pounds of verified-origin alfalfa and red cloverseed.

THE Federal Department cooperates with producers and handlers of seeds in other ways. The Seed Reporting Service was the first effort in this direction. This Service, initiated as a war measure in 1917, has become a permanent part of the Department's general program of furnishing crop and market information. It gives to growers and dealers timely information regarding acreage, production, prices, movement, and other statistical data pertaining to the important kinds of forage-crop seeds. Producers and dealers in such seeds can now adjust with much greater assurance than before their buying and selling operations, and their quotations.

The buying of forage seeds "in the dirt" has been subject to many abuses and dangers. In order to give the

producer and the country buyer or the wholesale dealer a better basis on which such seeds might be bought the Seed Dockage Inspection Service was established in 1938. This Service is being developed and improved with the expectation that it will cover the larger number of forage seeds in the future. At present it is concerned primarily with timothy, sweetclover, and Sudan grass seed, but will probably soon include alfalfa, red clover, and lespedeza.

THE emphasis on germination, purity, and noxious-weed-seed determinations in field seeds has resulted in the development of testing laboratories. State agricultural experiment stations and the Federal Department initiated this move. Today most of these institutions and most of the progressive field seedsmen have well-equipped seed laboratories conducted by qualified seed analysts trained in the same schools and by the same methods. Some seedsmen have large investments in equipment and personnel in their seed laboratories. Both official and commercial analysts have their respective associations and confer annually or oftener on seed problems.

New Hampshire, North Dakota, Tennessee, and Wisconsin were among the first States to enact seed legislation 30 years ago. Now all but Georgia and Florida have seed-control laws. The first Federal seed legislation was the Seed Importation Act passed in 1912 to control the quality of imports of certain forage seeds. Subsequently this act was amended to enlarge the scope of control on imports, to provide for the distinctive coloring of imported alfalfa and red cloverseed so as to indicate countries of origin, and to give some control over misbranding of seed in interstate commerce. Such imported alfalfa and red cloverseed as is generally unadapted to American agriculture is now stained 10 percent red.

TWO years ago a Seed Policy Committee was established in the United States Department of Agriculture to consider problems relating to the Federal Seed Act, the Seed Verification Service, and other matters of policy connected with seeds. This committee has brought to light ways in which improvements in the seed industry might be effected through close cooperation between the States, the Department, and the commercial seed industry. It has recommended the general labeling of field seeds in interstate commerce with better and more comprehensive information relating to kind, variety, origin, purity, noxious-weed-seed content, and germination, more ethical advertising of seeds, a system of records which will provide for better label information on variety and origin, and the elimination or restriction of the sale of screenings for seed purposes.

Careful observers of the seed industry believe that rapid change in the industry is likely to continue, that the seed business of the future will become more a professional business conducted on technical knowledge of seed and of the crops from which seeds are produced and which are produced from those seeds. The business is drawing increasingly for its important personnel upon men trained in these technical fields. It is also basing the conduct of its business increasingly upon the results of research along crop lines conducted by State and Federal institutions.

W. A. WHEELER.

Bee Business

BILLION baby bees have been moving north. They were born Alabama and other Southern States to replace winter losses in bee colonies from Maine to Montana. The bees traveled by fast express and motor-

truck, some by air mail. Many went on to Canada.

The breeding of bees was stimulated in the South by the increased demand for honey during the World War. Sugar then was scarce and high priced. Northern beekeepers wanted early bred bees to hasten production of honey. The bee-breeding business has persisted, and now more than a billion baby bees a year are produced to repopulate northern colonies or to start new colonies.

The bees travel in wire cages supplied with bee food—a mixture of sugar and water. Two- and three-pound packages contain nearly 10,000 to 15,000 bees, respectively, and a laying queen. Three- to five-pound packages of bees are used first to pollinate the fruit trees in northern orchards, then to make honey. Queen bees, bought separately for laying and breeding, travel in separate cages (usually by parcel post) attended by a dozen or more nurse bees. Queens sell for 40 cents to a dollar each.

The baby bees for northern colonies are produced chiefly in Alabama, Louisiana, Mississippi, Georgia, Texas, and California. They sell for 60 to 90 cents a pound (there are nearly 5,000 bees to the pound). There are about 250 commercial shippers in the business. Shipments to the North are principally by express, but the motortrucking of bees has been an increasing practice in recent years. The height of the shipping season is in April, May, and June.

Package beemen and queen breeders are participating in a marketing agreement and order program for the industry which was made effective on September 6, 1938. Handlers of package bees and queens are required to file with a control committee administering the program the prices at which bees are to be offered for sale. Certain unfair methods of competition and unfair trade practices are prohibited. Open-price filing is intended to encourage fair competition by providing a fuller knowledge of competitive factors without unduly curtailing price initiative—to promote stability of price levels by discouraging price cutting.

H. J. Clay.

Maryland Breaks With Antiquity

TWO tobacco auctions were opened in Maryland—at Hughesville and at Upper Marlboro—during the past month. A third auction floor is being constructed at Hughesville. Many tobacco growers in southern Maryland believe it only a question of time before the hogshead marketing system at Baltimore will be abandoned.

In the first 3 weeks the farmers brought tobacco to the auctions faster than it could be handled, buying interests were well represented, bidding was brisk, rejections by growers were few. About 400,000 pounds of tobacco were sold. Arrangements were made for the use of Government tobacco news reports so that farmers would be informed as to current values of the different qualities of leaf.

These tobacco auctions represent the first change made in the selling of tobacco in Maryland in more than a century. Indeed, one feature of the Maryland system—State inspection—was established in 1747. Other States long ago abandoned the hogshead system. Maryland continued to cling to it despite deepening dissatisfaction among buyers and sellers.

THERE has been general dissatisfaction over the sampling and inspection system in Maryland, since it was found that the samples frequently did not accurately represent the contents of the hogsheads. Commission agents have been known to pluck undesirable leaves from samples before they were sealed. Inferior leaves

been found in the center of the iners, sometimes foreign matter crease the weight. All sorts of d tobacco has been found in single ieads.

ncessions such as free storage are to growers and buyers at Balti-, and the commission men often loans to growers on current and ective crops. Nevertheless, it is ed that these conveniences have costly in the long run. It is ed also that the reputation of and tobacco has suffered in the markets. Exports have de-from 30 million pounds in the years of the industry, to 18 in 1923, and to less than 5 in 1938.

E break came in 1938 when aryland tobacco averaged only ents a pound to growers, as con-d with 25.4 cents in 1937. was widespread complaint over ecline in prices, and a movement tarted by some of the tobacco rs in the 5 southern counties where practically all the tobacco in Maryland is grown, for the establishment of auction-floor sales.

Growers believe that the auction-floor system will result in better prices, that the reputation of Maryland tobacco may be regained in export markets through a better system of marketing based upon better representations as to quality of leaf. The system makes possible the earlier marketing of tobacco since the leaf can be sold with a higher moisture content as contrasted with tobacco packed in hogsheads on the farm for the hogshead market.

Under the auction-floor system, the growers have an opportunity to be present during the sales, and to compare prices and qualities of tobacco. Payment is made immediately upon conclusion of the sale. Public and private agencies are watching closely the dual system of tobacco marketing in Maryland—the hogshead system at Baltimore, and the auction system in southern Maryland—weighing their relative worth.

CLAUDIA THOMSON.

Measures of Domestic Demand

[1924-29=100]

	April				Percent change		
	1929	1933	1938	1939	1938-39	1933-39	1929-39
l income	105.9	57.1	87.8	89.0	+1	+56	−16
cultural income:							
al	106.4	59.9	89.6	90.9	+1	+52	−15
capita	101.8	55.5	79.4	80.2	+1	+45	−21
pay rolls:							
al	109.4	38.8	71.5	81.5	+14	+110	−26
employed wage earner	103.3	61.1	84.1	90.2	+7	+48	−13
al production:							
al	113.3	61.8	72.1	86.1	+19	+39	−24
ories processing farm products	109.5	91.7	85.3	99.6	+17	+9	−9
er factory production	116.4	46.1	61.9	80.2	+30	+74	−31
ction activity:							
tracts awarded, total	101.7	11.6	43.0	56.2	+31	+384	−45
tracts awarded, residential	89.6	9.0	33.1	50.1	+51	+457	−44
oloyment in production of building aterials	95.1	33.2	56.2	61.3	+9	+85	−36
iving:							
i	97.1	57.9	76.5	73.8	−4	+27	−24
other items"	98.5	80.8	86.0	85.8	(1)	+6	−13
ing power of nonagricultural income oita:							
food	104.8	95.9	103.8	108.7	+5	+13	+4
"All other items"	103.4	68.7	92.3	93.5	+1	+36	−10

than ½ of 1 percent.

—All indexes adjusted for seasonal variation except "Cost of living."

General Trend of Prices and Wages

[1910-14=100]

Year and month	Wholesale prices of all commodities [1]	Industrial wages [2]	Prices paid by farmers for commodities used in [3]—			Farm wages	Taxes [4]
			Living	Production	Living and production		
1920	225	222	222	174	201	242	209
1921	142	203	161	141	152	155	223
1922	141	197	156	139	149	151	224
1923	147	214	160	141	152	169	228
1924	143	218	159	143	152	173	228
1925	151	223	164	147	157	176	232
1926	146	229	162	146	155	179	232
1927	139	231	159	145	153	179	238
1928	141	232	160	148	155	179	239
1929	139	236	158	147	153	180	241
1930	126	227	148	140	145	167	238
1931	107	208	126	122	124	130	217
1932	95	179	108	107	107	96	188
1933	96	172	109	108	109	85	161
1934	109	183	122	125	123	95	153
1935	117	192	124	126	125	103	155
1936	118	200	122	126	124	111	156
1937	126	215	128	135	130	126	161
1938	115	207	122	124	122	124	
1938—March	116	208	123	128	125		
April	115	204			125	121	
May	114	201			125		
June	114	202	122	126	124		
July	115	205			123	129	
August	114	209			122		
September	114	214	121	122	121		
October	113	212			121	126	
November	113	207			121		
December	112	212	120	122	120		
1939—January	112	211			120	117	
February	112	213			120		
March	112	218	119	122	120		
April	111	211			[5] 120	121	

Year and month	Index of prices received by farmers [August 1909–July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920	232	248	191		174	198	223	211	105
1921	112	101	157		109	156	162	125	82
1922	106	156	174		114	143	141	132	89
1923	113	216	137		107	159	146	142	93
1924	129	212	125	150	110	149	149	143	94
1925	157	177	172	153	140	153	163	156	99
1926	131	122	138	143	147	152	159	145	94
1927	128	128	144	121	140	155	144	139	91
1928	130	152	176	159	151	158	153	149	96
1929	120	144	141	149	156	157	162	146	95
1930	100	102	162	140	133	137	129	126	87
1931	63	63	98	117	92	108	100	87	70
1932	44	47	82	102	63	83	82	65	61
1933	62	64	74	105	60	82	75	70	64
1934	93	99	100	103	68	95	89	90	73
1935	103	101	91	125	118	108	117	108	86
1936	108	100	100	111	121	119	115	114	92
1937	126	95	122	123	132	124	111	121	93
1938	74	70	73	101	114	109	108	95	78
1938—March	85	70	69	101	117	117	93	96	77
April	82	71	68	98	114	110	93	94	75
May	79	71	77	88	111	103	98	92	74
June	77	68	73	92	116	98	99	92	74
July	72	71	79	99	123	101	103	95	77
August	62	69	78	92	115	102	105	92	75
September	63	69	75	107	117	104	118	95	79
October	60	72	70	107	111	107	124	95	79
November	60	73	71	102	111	109	131	94	78
December	63	70	73	108	109	112	127	96	80
1939—January	66	71	76	96	112	109	97	94	78
February	66	70	78	108	116	107	91	92	77
March	66	71	81	114	116	100	88	91	76
April	67	70	82	102	114	95	87	89	[5] 74
May	72	72	85	110	112	92	85	90	[5] 75

[1] Bureau of Labor Statistics Index with 1926=100, divided by its 1910–14 average of 68.5.
[2] Average weekly earnings, New York State factories. June 1914=100.
[3] These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.
[4] Index of farm real estate taxes, per acre, 1913=100.
[5] Preliminary.

U. S. GOVERNMENT PRINTING OFFICE: 1939